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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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22889	7590	06/01/2004	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			TORRES VELAZQUEZ, NORCA LIZ	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/966,309

Applicant(s)

KRANENDONK, DIRK

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 22-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 22-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments, see pages 7-8 of amendment, filed March 22, 2004, with respect to claim 13 have been fully considered and are persuasive. The 35 U.S.C. 112, second paragraph rejection of claim 13 has been withdrawn. Applicants have amended claim 13 and removed the trademark name Papermatch®.

2. Applicant's amendment and arguments filed March 22, 2004 have been fully considered but they are not persuasive.

a. With regards to rejection over Gundberg et al., Applicants argue that the coating of Gundberg et al. does not form a smooth surface for the underlying mineral fibers, but instead forms a netting over the fibers. Applicants have amended claim 1 to include the limitation "roller paintable". Applicants further noted that the thermoplastic coating of the present invention is added to the nonwoven material to reduce the amount of paint necessary to impart a smooth surface on the wall covering, not to improve the strength and tactility of the underlying fibers. Applicants further argue that a roller paintable visible outer surface would allow paint or other surface enhancements to be applied to the outer surface more easily, therein improving the aesthetic characteristics of the fiber reinforced wall covering. Further, that the netting material taught by Gundberg is not easily paintable, especially with a roller applicator. Applicants further argue that the fact that Gundberg et al. uses the same thermoplastic polymer materials is irrelevant because the materials are not being used to form a coating having a paintable outer surface.

The Examiner maintains her position that Gundberg et al. uses the same

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thermoplastic polymer materials is relevant because the reference provides all the structural elements claimed herein. Applicants are not claiming a paint layer, therefore, the limitation requiring that the thermoplastic polymer coating providing a roller paintable, visible outer surface is considered an intended use. Further, it is noted that new claim 23 claims a layer of "paint roller". The language used is confusing. A paint roller is a roller used for the application of paint and it seems that Applicant is trying to claim a layer of paint applies by a roller.

With regards to the arguments indicating that the coating of the present invention is added to the nonwoven material to reduce the amount of paint necessary to impart a smooth surface on the wall covering, not to improve the strength and tactility of the underlying fibers, it is noted that the degree smoothness of the surface produced by the coating layer is not claimed or defined. It is the Examiner's position that the intended use of the coating layer is not relevant since there are no further structural limitations that further define the structure that would define or quantify the degree of smoothness of the argued "smooth surface". The Examiner understands that any surface would be paintable if paint is applied to it and the type of paint is compatible with the materials of the surface that will promote its adhesion to the surface. With regards to the limitation "roller paintable", it is noted that the means used to paint the surface are not relevant because the structure only requires a nonwoven fiber tissue or mat and a thermoplastic polymer coating. With regards to claim 1, the structure does not require a paint layer and further the "paintable" language does not limit the structure further because this is considered an intended use of the coating. Therefore, prior rejections over Gunberg et al.

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are maintained on the same ground and a new rejection over Jackson is included in the present office action.

b. With regards to claim 8, it is noted that Applicants indicate in the response of May 22, 2004 that a copy of the standard will be provided. The claim will remain rejected until such copy is provided.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention as stated in previous action.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-4, 8, 11, 12 and 22-35 are rejected under 35 U.S.C. 102(b) as being anticipated by JACKSON (US 5,876,551) and further evidenced by WO 95/07946 (Abstract).

JACKSON teaches a breathable, decorative wall-covering having a smooth, continuous, aesthetically appealing exposed surface which can be printed with a design or pattern having sharply defined edges, and having a relatively high moisture permeability. The wall covering includes a porous polymeric ply fused to a nonwoven substrate ply. The porous polymeric ply is formed by thermally fusing a plastisol coating. The plastisol coating is thick enough to allow the formation of a coating, which upon thermal fusion provides a polymeric ply having a smooth continuous appearance. Upon heating the plastisol coating to a temperature, which is sufficient to cause fusion of resins contained therein, a highly permeable polymeric ply having the appearance of smooth, continuous film is formed. (Abstract) The reference further teaches that suitable resins used in the plastisols generally include a variety of thermoplastic resins, which are capable of fusing and absorbing the plasticizer upon application of heat. (Column 4, lines 62-67) While the reference discloses the use of some preferred thermoplastic resins, it fails to explicitly disclose the use of polyethylene and polypropylene resins. With regards to claims 27-29, 31-32 and 35, it is noted that the use of resins such as polyethylene in plastisol form to produce a coating material is known in the art as evidenced by the abstract of WO 95/07946. Further, JACKSON teaches the incorporation of titanium oxide, among other components, in the plastisol. (Column 5, lines 27-37) It is noted that the plastisol described by JACKSON is a dispersion. With regards to claim 22, JACKSON further teaches that the plastisol coating is

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preferably applied at a coating weight of from about 47 grams per square meter to about 155 grams per square meter. (Column 5, lines 52-57) With regards to claims 11 and 12, JACKSON teaches the use of mineral fibers in the nonwoven and also teaches that the area weight of the nonwoven is from about 47 gsm to about 61 gsm). (Column 4, lines 32 and lines 59-61) JACKSON also teaches that the two ply composite wallcovering generally have a moisture permeability of from about 25 perms to about 50 perms. (Column 6, lines 42-44)

It is noted that JACKSON further teaches that the exposed face of the porous polymeric poly is preferably printed with a suitable polymer-receptive ink to form desirable decorative patterns and designs. It teaches the application of those by various methods of printing such as by Gravure, flexography, screen printing, etc. (Column 6, lines 26-30) It is further noted, that the concept of screen printing is very similar to the concept of painting by using a roller in that both methods apply the ink or paint by contacting the roller or the cylindrical screen to the substrate and in both some degree of pressure between the screen or roller and the substrate is necessary to apply the ink or paint into the substrate. Therefore, the Examiner equates the ink painted layer taught by JACKSON to the layer of paint roller claimed in claim 23.

It is the Examiner's interpretation that the plastisol taught by JACKSON will read on the presently claimed thermoplastic polymer coating since the plastisol contains thermoplastic resins in a dispersion. The nonwoven substrate ply is equated to the presently claimed nonwoven fiber tissue or mat.

6. Claims 1, 3-5 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by GUNBERG et al. (US 6,203,646) as stated in previous action.

GUNDBERG et al. discloses a method of producing a mineral fiber element comprising a mineral fiber base layer having a surface coating in the form of a fibrous netting formed of a thermoplastic polymer material wherein such a surface coating is provided on at least a part of the surface of the base layer, wherein the surface coating is formed by heating a thermoplastic polymer material so as to melt it and distributing the polymer melt obtained in the form of fibers and/or filaments on the surface of the base layer and cooling it to form a solid layer. (Abstract)

The mineral base layer may have any form and typically it has the form of an endless web, a web, a mat or a sheet. (Column 3, lines 39-40) Therefore, the mineral base layer of GUNDBERG et al. equates to the claimed non-woven fiber tissue or mat of the present invention. Further, GUNDBERG et al. also anticipates the limitations of claim 11 since it teaches the use of mineral fibers. (Above) Since the material is the same, it would inherently meet the limitation "requiring less paint..."

With regards to claims 3, 4 and 5, GUNDBERG et al. teaches the use of a surface coating with a surface weight of from 2 g/m<sup>2</sup> to 50 g/m<sup>2</sup>. It also teaches the use of thermoplastic polymer materials such as polyethylene and polypropylene. (Column 3, lines 12-35)

With regards to claim 12, the reference teaches that in order to impart sufficient strength to the non-woven material, it should have a surface weight of at least about 20 g/m<sup>2</sup>. (Column 1, lines 47-51)

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary



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skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over GUNBERG et al.

It is noted that GUNBERG et al. is silent with respect to the claimed surface tension of the coating surface. However, it is reasonable to presume that the claimed surface tension is inherent to the invention of GUNBERG et al. Support for said presumption is found in the use of the same starting materials (i.e. fiber matt and thermoplastic polymer coating), like processes of making the articles (i.e., melting polymer of the matt), and the production of similar end-products (i.e., reinforced mineral fiber materials, etc...). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed function of surface tension would obviously have been provided as a result of the inventive corona discharge treatment taught by LAST's reference. *Note In re Best*, 195 USPQ 433.

9. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over GUNBERG et al. as applied to claims 1, 3-5 and 11-12 above, and further in view of PENZ et al. (US 5,888,913).

GUNBERG et al. fails to teach the use of mineral filler in the thermoplastic polymer coating.

PENZ et al. discloses glass matt reinforced thermoplastic and one of the object of their invention is to find glass matt reinforced thermoplastics with no insert visibility and that on the painted part satisfactory paint adhesion on the glass matt reinforcement thermoplastic surface is obtained without great expenditure. The reference teaches the addition of fine-particle, mineral fillers to enhance the paint adhesion. (Column 1, lines 64 – Column 2, lines 1-10)

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The reference further teaches adding mineral fillers such as talc, chalk and barium sulfate at concentrations from 2 to 60% by weight to the thermoplastics. (Column 3, lines 14-18)

Since both GUNBERG et al. and PENZ et al. are from the same field of endeavor, the purpose disclosed by PENZ et al. would have been recognized in the pertinent art of GUNBERG et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the thermoplastic polymer coating and provide it with mineral fillers with the motivation of obtaining a satisfactory paint adhesion on the glass matt reinforced thermoplastics as disclosed by GUNBERG et al. (Above).

10. Claims 9, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over GUNBERG et al. as applied to claims 1, 3-5 and 11-12 above, and further in view of MELBER et al. (US 4,898,892).

GUNBERG et al. fails to teach the use of an opacifying agent such as titanium dioxide in the thermoplastic polymer coating.

MELBER et al. discloses a method for making an opaque coating comprising combining a film forming coating binder and a composite opacifier. The reference teaches the use of inorganic opacifier materials such as titanium dioxide and calcium carbonate. (Column 1, lines 36-45) On Table III, the reference teaches how the film thickness and volume of opacifier is necessary for 94% hiding. (Column 17, lines 6-23). With regards to claim 13, it is known that the trademark product Papermatch is a dispersion of ground calcium carbonate and ground titanium dioxide in high density polyethylene and the prior art of reference teaches the use of these components, the ratio or ranges of concentration of these would be an obvious cause-

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effective variable that will depend on the intended refractive index of the opacifying component.


(Refer to claims 1 and 3)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the coating material to contain titanium dioxide with the motivation of providing the coating with "hiding" as disclosed by MELBER et al. (Above and also refer to column 2, lines 24-26).

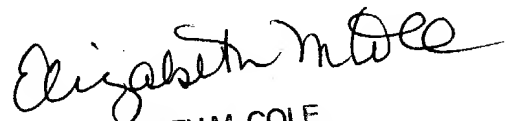
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Norca L. Torres-Velazquez  
Examiner  
Art Unit 1771

May 20, 2004

  
ELIZABETH M. COLE  
PRIMARY EXAMINER